

AMENDMENT IN RESPONSE TO SECOND OFFICE ACTION  
U.S. Application Serial No. 09/582,592

REMARKS

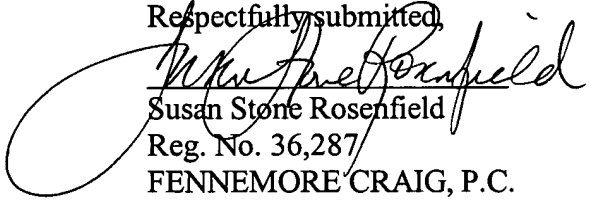
Applicant acknowledges with appreciation the statement in the most recent Office Action that claims 1-3 and 5 are allowed. These claims have been amended herein not in response to a rejection, but to further clarify and define the invention.

Claim 4 stands rejected under 35 U.S.C. § 102(b) as unpatentable over Gardner *et al.* (Chem. Abstract 1961:54194, m=22699-97-4). Claim 4 has herein been amended to distinguish over the compound set forth in Gardner. It is submitted that the presently claimed invention is both novel and unobvious over Gardner.

Applicant submits that the claims now present are in full compliance with 35 U.S.C. § 112. Applicant therefore requests reconsideration and allowance of all of the claims in the application. The Examiner is invited to telephone the Applicant's undersigned representative, if this would in any way facilitate prosecution of the application.

Dated: August 1, 2003

Respectfully submitted,

  
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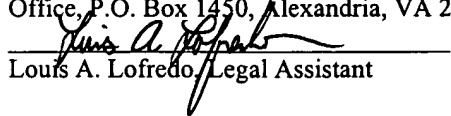
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Louis A. Lofredo, Legal Assistant

8/1/03  
Date of Signature

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**Version With Markings To Show Changes Made In this Amendment**

1. (Currently Amended) A The method of synthesizing phenstatin comprising the steps of :

oxidizing 3-(~~tert~~-butyl dimethylsilyl)oxy-4-methoxybenzaldehyde with potassium permanganate to form the corresponding carboxylic acid;

converting said carboxylic acid to the corresponding acid chloride;

treating said acid chloride with the lithium derivative obtained from 3,4,5-trimethoxybenzene and t-butyllithium to form a protected product; and

deprotecting said protected product to form phenstatin.

2. (Currently Amended) A The method of synthesizing phenstatin prodrug comprising the steps of:

phosphorylating phenstatin with dibenzylphosphite in the presence of bromodichloromethane to form a phosphate ester;

cleaving the benzyl ~~benzyl~~ groups from said phosphate ester by means of catalytic hydrogenolysis; and

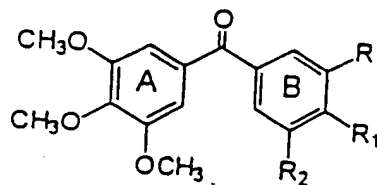
reacting the cleaved phosphate ester with sodium methoxide to produce the phenstatin sodium phosphate prodrug.

3. (Currently Amended) A The method of inhibiting cancer cell growth and tubulin polymerization in an environment inflicted therewith comprising: introducing into said

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environment a pharmaceutically acceptable carrier and a small but effective amount of phenstatin prodrug.

4. (Currently Amended) Phenstatin prodrugs and derivatives thereof having the structure:



wherein when R=H and R<sub>1</sub> = OCH<sub>3</sub>, R<sub>2</sub> is OPO<sub>3</sub>Na<sub>2</sub>[,] or OCOCH<sub>3</sub> or  $\Theta$ CH<sub>3</sub> and when R=R<sub>2</sub>, R<sub>2</sub> is OCH<sub>3</sub>, CH<sub>3</sub>, Cl or F and R<sub>1</sub> is H and when R<sub>1</sub> = R<sub>2</sub>, R<sub>2</sub> is  $\Theta$ CH<sub>3</sub> or OCH<sub>2</sub>O and R is H.